1 Executive Summary

Overview

GeoComm is pleased to provide the Iowa Statewide Interoperable Communications System (ISICS) Board and the 9-1-1 Communications Council this Draft Recommendations Report for the Iowa 9-1-1 Feasibility Study Project. There are 42 recommendations contained within this report. GeoComm believes that the recommendations, if accepted, can significantly enhance 9-1-1 service throughout the state. The ISICS Board and 9-1-1 Council are encouraged to review and consider the recommendations when planning for the future of 9-1-1 in Iowa.

The preliminary findings and discussions contained in this report provide the state with a strategic framework for decision making and future planning. While there are high-quality public safety communications services provided under the current structure, there are many benefits to be obtained from enhanced synergy between agencies and a plan for improvements in governance, operations, technology, and fiscal management.

After examining and assessing the data, interviewing key stakeholders, visiting selected Public Safety Answering Points (PSAPs), and observing public safety communications operations throughout the state, GeoComm developed a set of recommendations for consideration that will help the state and local jurisdictions advance the level of service in Iowa. In addition, this report provides potential obstacles to the recommendations and possible strategies to mitigate the impact of the potential obstacles should the recommendation be adopted.

GeoComm appreciates the opportunity to partner with the State of Iowa to address concerns and strategically plan for the future. We are confident that the recommendations provide a roadmap to opportunities within the state.

9-1-1 Policy

GeoComm has reported that from our observations and analysis, the limited coordination of services and purposeful "hands off" approach by the state in the management and oversight of local 9-1-1 services has resulted in a less than comprehensive picture of the costs and other metrics of the state's 9-1-1 system. The lack of a single control point for managing the overall costs of 9-1-1 has resulted in an inability to provide an overall 9-1-1 "state of the state" to the policy makers.

The opportunity for state policy makers to have a clear view of how 9-1-1 is managed, how it is paid for, what it costs to operate, and what consistent service standards are followed, offers potential to establish and enact effective governance policy and to manage costs in a more productive way.

There is further 9-1-1 policy opportunity to enact legislative modifications to update the language in the legislation to bring the law related to Enhanced 9-1-1 (E9-1-1) service more in line with current technology and regulations.

GeoComm was asked to evaluate and provide recommendation on the concept of regional call centers with local dispatch centers. Throughout the data collection, interview, and assessment process, the concept of regionalization was considered and evaluated. When looking at the efficacy of regional call centers with local dispatch centers, GeoComm finds that there is no financial or operational advantage to creating regional call centers and leaving independent dispatch centers within Iowa's existing network and governance structure. There may or may not be significant operational and financial advantage to full PSAP/dispatch consolidation should local agencies decide to study the feasibility of consolidation within their own region. While it may not be feasible for the state to initiate or direct consolidation, local agencies should be encouraged to look for synergy with their neighbors where it makes operational and financial sense to do so. The state should consider opportunities to encourage such research and feasibility projects.

Opportunities for Enhanced Decision Making

Engaging the local jurisdictions and the PSAPs in partnership with the state planners and authorities will provide further opportunity for collaborative decision making, thereby offering additional prospects for service improvement.

Next Generation 9-1-1 (NG9-1-1) planning and implementation will require more collaborative methods for addressing the concerns of local agencies. Policy related to a more integrated and coordinated approach to 9-1-1 management will be essential to sustaining the high quality of E9-1-1 service in Iowa. The NG9-1-1 effort will require all parties, local and state, service provider, and policy maker to commit to more inclusive and participatory governance.

Sustainable Funding

GeoComm finds that the state and local jurisdictions need to consider multiple options for mitigating the decline of funding while at the same time seeking ways to reduce costs. As reported in the Assessment of Existing Conditions Report, GeoComm finds that the current 9-1-1 surcharge model will not sustain the current level of 9-1-1 services across the state, nor will it provide the appropriate revenue for the long-term. Local budgets will be impacted harder as surcharge revenues continue to decline. In addition, the current funding structure will not provide adequate funding to advance the network to the next level of service as public demand for more technologically sophisticated and formerly non-traditional forms of communication become the norm.

Additional revenues can be realized in the short-term by eliminating cost recovery and equalizing surcharge fees among all service types, but it is unlikely that there is the necessary political will for increasing payments or fees to the degree necessary to keep up service levels. The resources necessary to support the current PSAP configuration are substantial and efforts to better control such costs are reasonable and appropriate.

In a very real sense, communities may no longer be able to afford to operate in the same way they always have. Local jurisdictions should engage their county Joint E9-1-1 Service Boards to explore methods for reducing the costs to provide E9-1-1 services in their communities, including but not limited to sharing technology or infrastructure as well as combining PSAPs or other local cost sharing efforts.

The state may need to adjust the funding model that has been in place for a number of years in order to continue to provide services the public expects and deserves by assuming a stronger leadership role and a more collaborative approach to oversight and shared management of the systems.

Opportunities for Knowledge Building

GeoComm found that network infrastructure best practices are not followed by many of the PSAPs in Iowa. There are significant opportunities to improve understanding about the applicability of network standards and best practices to the PSAPs. Redundancy and diversity methodology education can be useful to local leaders who must make decisions at the local level to improve continuity of operations during minor service interruptions, regional disasters, and/or large scale incidents.

Risk and Mitigation

In our previous reports, GeoComm reported concerns related to the risk that is inherent in the current 9-1-1 system. There are a variety of single points of failure and subsequent risks within the Iowa network. The outage reports GeoComm was able to obtain demonstrated that the 9-1-1 service provider has had an excellent service record and that service outages and even minor disruptions have not been a frequent issue for the state. However, wireline selective routers are not interconnected; there are some PSAPs still direct trunked which means they are not connected to any selective router; and there is limited redundancy or diversity which increases risks if an end office serving the PSAP becomes isolated. This would leave the PSAP vulnerable and unable to adequately serve its constituents. For PSAPs connected to a selective router, the vulnerability is significant if a cable is cut which would interrupt all 9-1-1 service to the PSAP. The single wireless selective router serving the 9-1-1 needs within the entire state also provides no backup or interconnectivity in the event of a service disruption. In the case of a failure with that selective router, the wireline E9-1-1 service to 41 PSAPs and a significant portion of the population would be disrupted, and wireless 9-1-1 service for the entire state would be disrupted.

Interoperability

The ability of public safety personnel to communicate across jurisdictional boundaries during regional and large-scale emergencies is one of the most compelling challenges facing public safety agencies in Iowa and throughout the nation, as personnel from all public safety disciplines and governmental levels are required to communicate with each other.

GeoComm's assessment of interoperability capacity in Iowa concludes that good progress has been made toward achievement of the interoperability goal pertaining to technology, with most first responders being able to communicate over VHF channels with their immediately surrounding agencies. During the study, however, GeoComm was presented with evidence that, while the technology to provide local and in many cases regional interoperability exists, there are instances where end users are not familiar with the capabilities that are available or how to activate those interoperability capabilities. Creating a common understanding among local agencies as to what local, regional, and statewide capabilities exist, how to activate them, and the subsequent practice to reinforce what they know, will in itself enhance interoperability.

Interoperability in Iowa involves both technological and operational issues that must be addressed through a coordinated, regional planning process. Interoperability planning requires that jurisdictional boundaries be set aside since the overarching goal is for agencies to operate across those boundaries. This in turn demands that agencies relinquish some control during those situations in order to achieve the benefit of a well-organized and efficient attack on the emergency situation.

The state has implemented tools, such as the Communication Assets Survey and Mapping (CASM) inventory tool, and established regional managers to coordinate and encourage its use. The Statewide Communications Interoperability Plan is being constantly revisited and updated with new and accurate information. These tools can be helpful to local emergency managers and other public safety planners. It appears that some additional education would be beneficial for these tools to reach their full use potential.

Next Generation Migration

It is imperative that Iowa move forward with NG9-1-1 implementation expeditiously and with adequate incentives for local jurisdictions to migrate rapidly in order to maximize efficiencies and maintain service quality. Managing the migration to NG9-1-1 will require a high degree of coordination and collaboration. During the migration process, it will be critical that the decision makers remain focused on E9-1-1 customer service, responder safety, and effective resource management. Because Iowa PSAPs have heretofore been responsible for their own operations and local decisions, the concept of collaboration in order to effectively manage NG9-1-1 services will be a new approach for local jurisdictions. Engaging local policy makers in the larger decision making process will present challenges, perhaps, but can only serve to benefit the state and ultimately the local jurisdictions as well.

Conclusion

GeoComm has made numerous recommendations in this report focused on governance, funding, and service enhancements for 9-1-1 in the state of Iowa. The recommendations establish a methodology and mechanism to enrich and support 9-1-1 to a higher degree both in the near term and as a future plan forward. We have been encouraged by the level of support received during the study process and share the state's goal for the most efficient and cost effective service for the citizens of Iowa.